

## **REMARKS**

The following remarks, taken together with the claim amendments listed herein, are provided in response to the Office Action communication dated December 28, 2007, in which the shortened period for response expires on March 28, 2008. Accordingly, this response is timely filed.

Upon receipt of the present Office Action, Applicant's claims 1-17 were pending in the above-identified patent application. Claims 1-16 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2006/0059107 (hereinafter "Elmore"). Claims 4-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Elmore as applied to claim 2, and further in view of U.S. Patent Application Publication No. 2004/0230559 (hereinafter "Newman"). Claims 11-16 were also rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

In light of the foregoing rejections, Applicant has proposed amending the claims, as reflected under the heading "Listing of Claims" beginning on page 2 of this paper, to more clearly distinguish the patentable subject matter of the claimed invention. In addition, Applicant submits the following remarks wherein the Examiner's rejections are respectfully traversed.

### **Examiner Interview & Suggested Amendment to the Claims**

Applicant would like to take this opportunity to thank Examiner Lovel for her time in participating in the telephonic interview conducted on February 5, 2008, in which the Examiner's rejection of claim 1 was discussed.

In the interview, Applicant's representative presented arguments distinguishing Elmore from the claimed invention. As discussed, Elmore refers to a specific hierarchy of object, while Applicant's claimed invention implements an abstract interface which has a data set comprising a hierarchy of arbitrary element types (functions or data). Applicant's representative suggested, and the Examiner agreed, that in order to more clearly distinguish the claimed invention from the teachings of Elmore, claim 1 should be amended to recite the limitation of arbitrary element types, and further recite additional steps in the claimed process that present limitations in implementing the business layer as beans (i.e., JavaBeans) and in transmitting between network units using a Simple Object Access Protocol (SOAP) transport layer.

Accordingly, Applicant's representative kindly directs the Examiner's attention to amended claim 1, as reflected under the heading "Listing of Claims" beginning on page 2 of this paper, wherein the foregoing suggested amendments have been incorporated.

**Rejection of Applicant's Claims under 35 U.S.C. § 101**

Claims 11-16 have been rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter. More particularly, claims 11-16 are allegedly directed to software per se without any accompanying computer hardware.

Claim 11 has been amended, as reflected under the heading "Listing of Claims" beginning on page 2 of this paper, to include at least one server on which the code for the dataset, business layer, and presentation layer are encoded and executed. Accordingly, claim 11 is now deemed to be directed to statutory subject matter. Since claims 12-16 depend from amended claim 11, they are also now deemed to be directed to statutory subject matter.

In light of the foregoing amendments, Applicant respectfully requests that the claim rejections asserted under 35 U.S.C. §101 be withdrawn.

**Rejection of Applicant's Claims under 35 U.S.C. § 102(e)**

The Examiner rejected claims 1-17 under 35 U.S.C. § 102(e) as being anticipated by Elmore.

Elmore describes an electronic business support system that comprises three layers: (1) a business layer, including various smart components which unify data and business processes across all customer interactions; (2) an integration layer, including various communications messaging interfaces and enterprise application integration adapters; and (3) a presentation layer, including various customer views, which are presented via particular business portals.

Applicant's amended claims 1 and 17 recite a method, while amended claim 11 recites a data structure implemented by the method of amended claim 1. Each of amended claims 1, 11 and 17 recite providing a data set structure which implements an abstract interface for use in both the business layer and the presentation layer, said data set structure comprising hierarchical organizational information for arranging one of data and functions into at least one tree structure,

the true structure being configured to store one of data and functions of arbitrary type; populating a business layer data set in said business layer according to said data set structure, said business layer data set comprising data and functions available for use in said business layer; instantiating the business layer data set in said business layer as beans; serializing the beans into XML; transporting the serialized beans to the presentation layer using the Simple Object Access Protocol (SOAP); deserializing the serialized beans in the presentation layer; and populating a presentation layer data set in said presentation layer according to said data set structure from said business layer data set encoded as beans, said presentation layer data set comprising data and functions available for use by the user in said presentation layer.

The data set structure of Applicant's claimed invention provides a uniform code interface for access to data items and function items, which ultimately store data structures and functions, respectively. Data sets are defined and accessed in both the business layer and the presentation layer to provide a uniform interface for functions and data, regardless of the type of data structure and function.

Elmore does not describe a data set structure. The Examiner cited paragraphs [0094], [0514]-[0516] and FIG. 18 as defining a data set structure which implements an abstract interface comprising hierarchical organization information for arranging objects into a hierarchy, the tree structure being navigable without regard to the type of data or function being stored. In the cited portions of Elmore, billing points and products that a user procures are organized into a hierarchy. There are three types of objects in the hierarchy: a root, a billing point and an assigned product. This hierarchy is a hierarchy of objects of specific types which do not implement an abstract interface, and cannot store one of data and functions of arbitrary type. The hierarchy object can be sub-classed, but not manipulated to store trees of objects of arbitrary type, only objects of type root, billing point or assigned product.

In addition, although the business layer of Elmore is composed of smart components implemented as beans, there is no disclosure or suggestion in Elmore that these beans employ the SOAP transport protocol. In fact, the only protocols mentioned in Elmore for transport adapters are IIOP or DCOM.

In view of the foregoing, Applicant submits that Elmore does not teach or suggest each and every limitation of amended claims 1, 11 and 17. Additionally, each of claims 2-10

ultimately depend from claim 1, and each of claims 12-16 ultimately depend from claim 11. Since amended claims 1 and 11 have been shown to be patentable, each of the aforementioned dependent claims are also patentable. Accordingly, Applicant respectfully requests that the rejection asserted under 35 U.S.C. 102(e) be withdrawn.

**Rejection of Applicant's Claims under 35 U.S.C. § 103(a)**

The Examiner rejected claims 4-8 under 35 U.S.C. § 103(a) as being unpatentable over Elmore as applied to claim 2, and further in view of Newman.

Newman describes an information processing system which includes a multi-layer architecture between a data store and a user interface. Newman, however, fails to correct the deficiencies of Elmore.

Newman, when taken alone or in combination with Elmore, fails to teach, suggest or render obvious providing a data set which implements an abstract interface that stores in a tree structure a hierarchy of objects of arbitrary type. Newman also fails to teach or suggest a transport protocol to be used by its objects, particularly the SOAP protocol. Still further, the Examiner cited paragraph [0122] of Newman as teaching a domain which corresponds to a way of defining the data type of an object. This section of Newman merely describes the types of objects that are recognized in the business layer for use with OQL, and domain does not specify the types. Domains in the sense of Newman are defined as objects that serve as an interface between business objects of the business layer and a data store. The domain objects do not serve to act as representatives of data types of objects.

In view of the foregoing, Applicant submits that Elmore and Newman, whether taken individually or in combination, fail to teach, suggest or render obvious each and every limitation of amended claim 1. Claims 4-8 ultimately depend from amended claim 1. Since amended claim 1 has been shown to be patentable, each of the aforementioned dependent claims are also patentable. Accordingly, Applicant respectfully requests that the rejection asserted under 35 U.S.C. 103(a) be withdrawn.

**Conclusion**

For at least the reasons set forth above, this patent application, as amended, is now in condition for allowance. Reconsideration and prompt allowance of this patent application are respectfully requested.

If it will advance the prosecution of this patent application, the Examiner is urged to telephone (973.597.6326) Applicant's undersigned representative. All written communications should continue to be sent to the address provided below.

Respectfully submitted,

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